Department of Earth & Environment

2018 Graduate Research Symposium

School of Environment, Arts and Society
College of Arts, Sciences and Education
Florida International University

MARC Pavilion, Modesto Maidique Campus
Friday, February 16

Schedule

Welcome and Opening Remarks
8:30   Morning refreshments
9:00   Dr. Rene Price, Chairperson, Department of Earth & Environment
9:05   Dr. Evelyn Gaiser, Executive Director, School of Environment, Arts and Society

Graduate Student Presentations
9:30 – 11:10 am   Session 1 – Oral Presentations
11:10 – 11:20 am  Coffee break and posters
11:20 – 12:00 pm  Session 2 – Poster Tour, authors present
12:00 – 1:00 pm   Lunch (provided for all presenters)
1:00 – 2:40 pm    Session 3 – Oral Presentations
2:40 - 2:50 pm    Coffee break and posters
2:50 - 4:05 pm    Session 4 – Oral Presentations

Awards Reception and Social Hour
4:05 – 5:00 pm   Refreshments and presentation of awards for best posters and best talks
Presentations

Session 1 – Oral Presentations

9:30  **Joshua Allen**, PhD student, Earth Systems Science: Evaluating the Effectiveness of the L31N Canal Seepage Barrier

9:42  **Zongyao Yang**, PhD student, Earth Systems Science: Microphysical-Dynamical Interaction in Tropical Cyclone Intensification

9:54  **Kevin Cavasos**, PhD Student, Earth Systems Science: Restocking the Endangered Acropora Cervicornis on the Florida Reef: Impacts on Optimal Commercial Reef Fish Harvest

10:06 **Anteneh Abiy**, PhD Student, Earth Systems Science: Teleconnections of local drought to ENSO, PDO, and AMO: Miami Dade County, Southeast Florida

10:18 **Boya Zhang**, PhD Student, Earth Systems Science: Mapping the Extent and Magnitude of Severe Flooding Induced by Hurricanes Harvey, Irma, and Maria with Sentinel-1 SAR and InSAR Observations

10:30 **Ariel Freidenrich**, PhD student, Earth Systems Science: Incorporating Cover Cropping Regimes into Fruit Groves of the South Florida Redland

10:42 **Jander Socorro**, PhD student, Earth Systems Science: Regional paleoenvironmental influence on organic matter sequestration and carbon isotope segment C5 in the hemipelagic sequence at the EL Pujal Section, Organyà Basin, northeast Spain

10:54 **Heather Black**, PhD Student, Earth Systems Science: Orbital variability of paleoproductivity within the Japan Sea since the Late Pleistocene

Session 2 – Poster Presentations (11:10-12:00, with all first authors present)

1)  **Mohd Manzar Abbas**, MS Student, Environmental Studies: Developing ocean color algorithm using Moderate Resolution Imaging Spectroradiometer (MODIS) sensor for shallow coastal water bodies

2)  **Cody Eggenberger**, MS Student, Environmental Studies: Effects of enrichment on recreational fishes in coastal Everglades lakes.

3)  **Alejandro Garcia**, MS Student, Geosciences: Spectral Induced Polarization measurements on Microbial Activity within Hanford Sediment

4)  **Jennifer Gil-Acevedo**, MS Student, Environmental Studies: Sensitivity of Marine Cyanobacteria and Green Microalgae to Nano and Bulk Zinc Oxides
5) **Aldo Farah Pérez**, PhD Student, Earth Systems Science: River fragmentation by hydropower in Costa Rica and potential impacts for fish fauna.

6) **Eshita Samajpati**, PhD Student, Earth Systems Science: Insights into the Early to Late Oligocene Izu-Bonin Mariana Arc Magmatic History from Volcanic Minerals and Glass within Volcaniclastic Sediments of IODP Site U1438 and DSDP Site 296

7) **Shishir Sarker**, MS Student, Environmental Studies: Spatial and temporal distribution of total Phosphorus concentrations in Everglades Protection Area (EPA)

8) **Maria Sider**, PhD Student, Earth Systems Science: Benthic Foraminiferal Facies of a Caribbean, mid-Holocene Coral Reef, Isla Colon, Bocas del Toro, Panama

9) **Mary Tiedeman**, PhD Student, Earth Systems Science: Phosphorus Dynamics within Calcareous Soils of South Florida.

10) **Shagufta Gaffer**, PhD Student, Earth Systems Science: Managing South Florida Invasive Plant Species through Biochar Production

11) **Lydia Cuni**, MS Student, Environmental Studies: Plant Species Richness and Diversity Across the Pine Rockland-Hardwood Hammock Ecotone: Insights for Restoration Efforts of an Imperiled Ecosystem Junction

**Session 3 – Oral Presentations**

1:00 **Jesse Blanchard**, PhD Student, Earth Systems Science: Traits overwhelm environmental factors during metacommunity assembly

1:12 **Israel Gonzalez**, PhD Student, Earth Systems Science: Convectively Forced Vortex Rossby Waves at Different Specified Frequencies

1:24 **Ana Alexandra Rojas**, MS Student, Environmental Studies: Collaborative International Student Research

1:36 **Heather Vazquez**, PhD Student, Earth Systems Science: Evaluating Changes to Oceanic Variability on a Warmer Globe in CMIP5 Models

1:48 **Haydee Borrero**, PhD Student, Earth Systems Science: Comparison of Herbivory Intensity and Impacts on Populations of Trichocentrum undulatum in Southern Florida and Neighboring Cuba

2:00 **Zoe Verlaak**, PhD Student, Earth Systems Science: Spatial distribution of modern foraminiferal assemblages in the southwestern Everglades, Florida, USA

2:12 **Javiera Hernandez**, PhD Student, Earth Systems Science: Understanding Hurricane Damage Using Idealized Catastrophe Models

2:24 **Joshua Diamond**, PhD Student, Earth Systems Science: Cavity nest webs as a template for studying non-trophic interactions in invasion ecology
Session 4 – Oral Presentations

2:50  Carlos Herdocia, PhD student, Earth Systems Science: Geochemical Characterization of the Cabo Formation, Organya, Spain

3:02  Michael Kiflai, PhD student, Earth Systems Science: The effect of disturbance on freshwater lenses in Big Pine Key, Florida

3:14  Jeremy Katz, PhD Student, Earth Systems Science: Impact of Precipitation on the Tropical Cyclone Induced Upper Ocean Cooling in the Coupled Atmosphere-Ocean System

3:26  Christina Estella Brown, PhD student, Earth Systems Science: The effects of risk perception on willingness to pay for Everglades recreational ecosystem services

3:38  Xinxi Wang, PhD student, Earth Systems Science: Evolution of Environmental Characteristics and Precipitation in Rapidly Intensifying and Slowly Intensifying Tropical Cyclones in the North Atlantic and Eastern North Pacific

3:50  Carissa Gervasi, PhD Student, Earth Systems Science: Effects of the 38-year Closure of the Crocodile Sanctuary, Everglades National Park, on Fish and Fisheries

Awards

A panel of judges will announce the winners at 4:45 PM. Awards for best presentation and runner-up, and best poster and runner-up, will be given in both the MSc and PhD cohorts. Best Poster and Best Presentation awardees receive a $100 gift certificate, and the runners-up receive a $50 certificate.

Acknowledgements

All of us are grateful to Caridad Machado, Gail Excell, Diane Pirie, Kristen Davis and Javier Feito for their organizing efforts that have brought the Earth and Environment faculty, staff and students together to experience and celebrate the terrific research of the graduate students.